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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,220	02/03/2006	Bernard Jacob Andries Stommen	NL030986	9547

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
BARNES-BULLOCK, CRYSTAL JOY	
ART UNIT	PAPER NUMBER
2121	
MAIL DATE	DELIVERY MODE
06/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,220	STOMMEN ET AL.	
	Examiner	Art Unit	
	Crystal J. Barnes Bullock	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,6,7,10,15,16,19,21 and 22* is/are rejected.

7)☒ Claim(s) *2-5,8,9,11-14,17,18,20 and 23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a second Non-Final Office Action in response to the Amendment received on 29 February 2008. Claims 1-7, 9, 11-14, 18, 20 and 23 have been amended. Claims 1-23 remain pending in this application.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 29 February 2008, with respect to the objection to the specification have been fully considered but they are not persuasive. Section headings are required in accordance with MPEP 608.01(a) and 37 CFR 1.77(b). Appropriate action is required.

3. Applicant's arguments, see Remarks, filed 29 February 2008, with respect to the rejection(s) of claim(s) 1, 6, 10, 15, 19 and 21 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of USPN 5,671,058 to Kawaguchi.

4. Applicant's arguments, see Remarks, filed 29 February 2008, with respect to the rejection(s) of claim(s) 2-5, 11-14 and 20 under 35 USC 103(a) have been fully considered and are persuasive. The rejections of the claims have been withdrawn.

Specification

5. The disclosure remains objected to because of the following informalities:

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The amendments to the claim were received on 29 February 2008. These corrections are acceptable.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 6, 7, 10, 15, 16, 19, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,671,058 to Kawaguchi.

As per claim 1, the Kawaguchi reference discloses positioning apparatus comprising: at least one position sensor (12) (see column 7 lines 27-31, "radial position detectors 31, 33, axial position detector 35, rotational detector 37"), at least one position controller (13) (see column 7 lines 35-47, "axial position controller 505, processor 601, rotational positional controller 605") and at least one position actuator (14) (see column 7 lines 41-43, 45-47, "axial position actuator 36, rotational actuator 38"), wherein the or each position sensor (12) ("radial position detectors 31, 33, axial position detector 35, rotational detector 37") measures the position of a position-controlled device (11) (see column 5 lines 23-34, "movable member 40"), wherein the or each position controller (13) ("axial position controller 505, processor 601, rotational positional controller 605") uses measurement signals provided by the or each position sensor (12) ("radial position detectors 31, 33, axial position detector 35, rotational detector 37") as input signals, and wherein output signals generated by the or each position controller (13) ("axial position controller 505, processor 601, rotational positional controller 605") are used by the or each position actuator (14) ("axial position actuator 36, rotational actuator 38") to control the position of said position-controlled device (11) ("movable member 40"), the positioning apparatus further comprising a gravity

compensation device (see column 7 lines 35-38, "first controller 602, second controller 603") compensating gravitational forces acting on said position-controlled device (11) ("movable member 40"), characterized in that the gravity compensation device ("first controller 602, second controller 603") includes at least one gravity compensation controller (16; 25, 28) ("first controller 602, second controller 603") and at least one gravity compensation actuator (17) ("actuators 32, 34"), wherein the or each gravity compensation controller (16; 25) ("first controller 602, second controller 603") uses the output signals generated by the or each position controller (13) ("movable member 40") as input signals, thereby generating output signals used by the or each gravity compensation actuator (17) (see column 8 lines 21-31, "actuators 32, 34") to compensate gravitational forces acting on said position-controlled device (11) ("movable member 40").

As per claim 6, the Kawaguchi reference discloses the gravity compensation device ("first controller 602, second controller 603") includes one gravity compensation controller (16) ("first controller 602, second controller 603"), wherein the output signals of said one gravity compensation controller ("first

controller 602, second controller 603") are used to control the gravity compensation actuator (17) (see column 6 lines 41-50, "actuators 32, 34").

As per claim 7, the Kawaguchi reference discloses the gravity compensation device ("first controller 602, second controller 603") includes two gravity compensation controllers ("first controller 602, second controller 603"), wherein a first gravity compensation controller (25) ("first controller 602, second controller 603") uses the output signals generated by the position controller (13) ("processor 601") as input signals, wherein a second gravity compensation controller (28) (see column 9 lines 1-3, "first compensatory controller 701, second compensatory controller 702") uses the output signals generated by the first gravity compensation controller (25) ("first controller 602, second controller 603") as input signals, and wherein output signals from said second gravity compensation controller (28) ("first compensatory controller 701, second compensatory controller 702") are used to control the gravity compensation actuator (17) (see column 9 lines 23-25, "actuators 32, 34").

As per claim 10, the Kawaguchi reference discloses gravity compensation device for compensating gravitational forces acting on a position-controlled device (11) (see column 5 lines 23-34, "movable member 40"), wherein the position of said

position-controlled device (11) ("movable member 40") is measured by at least one position sensor (12) (see column 7 lines 27-31, "radial position detectors 31, 33, axial position detector 35, rotational detector 37") and controlled by at least one position controller (13) (see column 7 lines 35-47, "axial position controller 505, processor 601, rotational positional controller 605"), characterized by at least one gravity compensation controller (16; 25, 28) (see column 7 lines 35-38, "first controller 602, second controller 603") and at least one gravity compensation actuator (17) (see column 8 lines 21-31, "actuators 32, 34"), wherein the or each gravity compensation controller (16; 25) ("first controller 602, second controller 603") uses the output signals generated by the or each position controller (13) ("axial position controller 505, processor 601, rotational positional controller 605") as input signals, thereby generating output signals used by the or each gravity compensation actuator (17) ("actuators 32, 34") to compensate gravitational forces acting on said position-controlled device (11) ("movable member 40").

As per claim 15, the Kawaguchi reference discloses one gravity compensation controller (16) ("first controller 602, second controller 603"), whereby the output signals from said one gravity compensation controller (25) ("first controller 602,

second controller 603") are used to control the gravity compensation actuator (17) (see column 6 lines 41-50, "actuators 32, 34").

As per claim 16, the Kawaguchi reference discloses two gravity compensation controllers ("first controller 602, second controller 603"), wherein a first gravity compensation controller (25) ("first controller 602, second controller 603") uses the output signals generated by the position controller (13) ("processor 601") as input signals, wherein a second gravity compensation controller (28) (see column 9 lines 1-3, "first compensatory controller 701, second compensatory controller 702") uses the output signals generated by the first gravity compensation controller ("first controller 602, second controller 603") as input signals, and wherein output signals from said second gravity compensation controller (28) ("first compensatory controller 701, second compensatory controller 702") are used to control the gravity compensation actuator (17) (see column 6 lines 41-50, "actuators 32, 34").

As per claim 19, the Kawaguchi reference discloses method for compensating gravitational forces acting on a position-controlled device (see column 5 lines 23-34, "movable member 40"), whereby the position of said position-controlled device ("movable member 40") is measured by at least one position sensor (see column 7 lines 27-31, "radial position detectors 31, 33, axial position detector 35, rotational

detector 37") and controlled by at least one position controller (see column 7 lines 35-47, "axial position controller 505, processor 601, rotational positional controller 605"), characterized in that at least one gravity compensation controller (see column 7 lines 35-38, "first controller 602, second controller 603") uses output signals generated by the or each position controller ("axial position controller 505, processor 601, rotational positional controller 605") as input signals thereby generating output signals used by at least one gravity compensation actuator ("actuators 32, 34") to compensate gravitational forces acting on said position-controlled device ("movable member 40").

As per claim 21, the Kawaguchi reference discloses one gravity compensation controller ("first controller 602, second controller 603") is used, whereby the output signals of said one gravity compensation controller (first controller 602, second controller 603") are directly used to control the gravity compensation actuator (see column 6 lines 41-50, "actuators 32, 34").

As per claim 22, the Kawaguchi reference discloses two gravity compensation controllers ("first controller 602, second controller 603") are used, wherein a first gravity compensation controller ("first controller 602, second controller 603") uses the output signals generated by the position controller

("processor 601") as input signals, wherein a second gravity compensation controller (see column 9 lines 1-3, "first compensatory controller 701, second compensatory controller 702") uses the output signals generated by the first gravity compensation controller ("first controller 602, second controller 603") as input signals, and wherein output signals of said second gravity compensation controller ("first compensatory controller 701, second compensatory controller 702") are used to control the gravity compensation actuator (see column 6 lines 41-50, "actuators 32, 34").

Allowable Subject Matter

9. Claims 2-5, 8, 9, 11-14, 17, 18, 20 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to positioning control systems compensating gravity forces in general:

USPN 6,982,681 B2 to Orfei et al.

USPN 5,847,874 to Sasao et al.

JPPN 2001-1322045 A to TAKIZAWA

JPPN 7-295649 A to DEGUCHI

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes Bullock whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571.272.2100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Crystal J. Barnes Bullock/
Primary Examiner, Art Unit 2121
CJB
10 June 2008